

## CLINICALLY ACTIVE YAWS IN SHEFFIELD\*

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In a recent annual report, the Chief Medical Officer stated that 405 cases of yaws were diagnosed in venereal diseases clinics in England and Wales during 1960 (Ministry of Health, 1962). Laird (1955), first to point out the arrival of the disease in Great Britain, drew attention to the difficulty in differentiating the condition from syphilis in the absence of clinical signs of active disease. In such cases the only evidence of infection is a confirmed positive serological test for treponemal infection.

Yaws is a tropical disease associated with a hot, humid climate and poor social conditions. It occurs commonly before puberty, being contracted by non-sexual contact, and is caused by a treponeme indistinguishable, morphologically and serologically, from that causing syphilis. Like syphilis, it passes through primary, secondary, latent, and late stages, although these tend to follow one another with greater rapidity. The primary lesion or "mother yaw" appears on the exposed parts and is soon followed by more widespread secondary lesions. Periostitis and osteitis occur in the late secondary and late stages of the disease. Some of the usual late manifestations of syphilis, such as involvement of the central nervous and cardiovascular systems, do not occur, although gummata may be present. Congenital infection is not known.

Thus we may look to several points for help with the differential diagnosis. As syphilis is rare in areas where yaws is common, full details of early social environment are important. Thus some West Indians and West Africans admit to childhood yaws, and others remember it as being in the family. The more class-conscious, fearing to be thought peasants, will do no more than admit that they knew the disease existed in their village. "Cigarette paper" scars on exposed parts and bowing of tibiae suggest old yaws

infection. The rise and fall in titre of the serological tests for syphilis are alike in yaws and syphilis. Since yaws usually occurs at an earlier age than acquired syphilis it is not surprising to learn (Laird, 1955) that the titre of positive tests is not generally so high in late yaws as in syphilitics.

In 1961, yaws was diagnosed in Sheffield in ten male West Indians out of a total of 226 (4.4 per cent.) who were routinely tested on attending the city's venereal disease clinics. A total of 141 West Indian females had routine ante-natal tests at public health service clinics in 1961; thirteen (9.2 per cent.) were believed to have yaws and ten of these had already been seen in previous years.

Treatment to the point of eradication in many tropical areas has been one of the great success stories of mass campaigning by the World Health Organization. Minimal curative doses of penicillin given to the maximum number of people has been the rule. Regular and necessary follow-up surveys over the years have shown the value of this work both clinically and socially. In Great Britain, the general rule among venereologists is to give patients with old yaws a 6 mega-unit course of penicillin over some 10 days. If diagnosis is difficult, at least treatment is usually straightforward and uncomplicated.

Although, as the Ministry reports show, several hundred cases have now been diagnosed annually in England and Wales for some years, we have been unaware of any report of overtly active cases, such as the two reported below.

### Case Reports

**Case 1, a 46-year-old male**, first attended in March, 1961, with ulceration of the right leg. The ulcer was of 6 months' duration and had followed local trauma. There was no history of yaws in childhood nor did he recall any knowledge of the disease in his family. He was born and spent his childhood in a village in the parish of St. Ann in

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Jamaica, and had no history of acquired syphilis or other venereal infection. In 1942, at the age of 26 years, his Wassermann test had been found positive when he proposed emigrating to America. He then received sixteen injections but did not know the name of the preparation used.

**Examination.**—A typically gummatous ulcer  $\frac{1}{2}$  in. by  $\frac{3}{4}$  in. with punched-out edges and a sloughing base was found above the right external malleolus. There were multiple "cigarette paper" scars on this leg, which showed areas of pigmentation and depigmentation (Fig. 1). There was a suggestion of anterior bowing in the mid-third of the right tibia. No genital scar of a primary syphilitic sore was found. Physical examination of all systems revealed no abnormality, but the blood pressure was 170/80. The cerebrospinal fluid was normal.

The report of anteroposterior and left oblique radiological views of the chest was

"The heart is very slightly enlarged, C.R. ratio 15·5/30, but this appearance is accentuated by the high position of the diaphragm. There is relative prominence of the left ventricle. There is early unfolding of the aorta but the anterior view does not suggest any aortitis or aneurysm. The lung fields are clear."

An x-ray of the right leg revealed cortical irregularity and thickening in the lower end of the fibula.

**Serological Tests.**—The Wassermann reaction, Kahn test, Price's precipitation reaction test, Reiter protein complement-fixation test were all negative. The highly specific treponemal immobilization test, however, was positive. These serological findings were confirmed on repetition.

**Progress.**—After 3 months' treatment with bismuth and penicillin the ulcer had decreased to about  $\frac{1}{4}$  in. in diameter. It was covered with heavily keratinized skin and showed occasional weeping. The poor blood supply to scarred skin probably accounted for this delay in complete healing (Fig. 2).

**Diagnosis.**—While one cannot be dogmatic that this case is one of yaws and not syphilis there are several points in favour of the diagnosis of late yaws, *e.g.* history of village childhood, multiple "cigarette paper" scars, x-ray changes in the fibula, negative venereal history, and absence of signs of past or present syphilis.

**Case 2, a 45-year-old West Indian labourer**, attended the out-patients department in June, 1962, with a 3 months' history of pain in the right leg. He had noticed a firm tender lump over his right shin, and this had been particularly painful at night.

The patient was a villager from Grenada and had lived there until he emigrated to England at the age of 39.



FIG. 1.—Case 1, showing scars, pigmentation, and tibial bowing.



FIG. 2.—Case 1, showing some improvement after 3 months treatment. "Cigarette paper" scarring is also seen.

There was no history of yaws or of any venereal infection.

*Examination.*—There was a tender swollen area 3 in. by 3 in. over the right tibia. The skin was shiny and hot. There were numerous "cigarette paper" scars on both legs. No abnormality was noted in the central nervous or cardiovascular systems. There were no stigmata of congenital syphilis.

An x ray of the right tibia showed cortical thickening and evidence of periostitis over the mid-shaft. A chest x ray was normal.

The Wassermann reaction and Kahn test were negative, and the Reiter protein complement-fixation and treponemal immobilisation tests were positive.

The cerebrospinal fluid was normal, haemoglobin 99 per cent; E.S.R. 8 mm. in 1 hr.

*Progress.*—Treatment with penicillin for 10 days was followed by rapid resolution of the swelling and tenderness over the right tibia.

*Diagnosis.*—Late yaws is favoured because of the

patient's residence in a yaws area, multiple scars on the legs, definite evidence of periostitis, negative venereal history, and absence of signs of congenital or late acquired syphilis.

#### Summary

Two cases seen in Sheffield of West Indian males with active lesions thought to be due to late yaws, are presented.

#### REFERENCES

- Laird, S. M. (1955). *Brit. J. vener. Dis.*, **31**, 30.  
Ministry of Health (1962). *Ibid.*, **38**, 43 (Extract from the Report of the C.M.O. for the year ended December 31, 1960. Published 1961).

#### Le pian actif à Sheffield

##### RÉSUMÉ

Ou décrit deux immigrants des Indes occidentales atteints de lésions actives, qu'on croit dues au pian tardif.